

**AMENDMENTS TO THE DRAWINGS**

Please replace FIG. 5 with the Replacement Sheet marked up in red ink attached herein.

## **REMARKS**

In response to the Office Action mailed on January 24, 2007, Applicant respectfully requests reconsideration. Claims 1-12 were previously pending in this application. By this response, claims 1-12 have been amended. New claims 13-16 are added. As a result, claims 1-16 are pending for examination with claim 1 being independent.

### **I. Objections to the Drawings**

The Office Action objects to the drawings because the two current mirrors in figure 5 are allegedly unclear. Applicant has redrawn the dotted lines encircling the components of current mirror 30 and current mirror 32, respectively. As described on page 5, lines 22 and 23, "T1, T2, T3 and T4 comprise first current mirror 30, and transistors T1, T2, T5 and T6 comprise second current mirror 32." The dotted lines added in red to the Replacement Sheet now clearly illustrate grouping of transistors forming current mirror 30 and current mirror 32, respectively, as described in the Specification. Thus, Applicant respectfully requests that the objection to the drawings be withdrawn.

### **II. Objections to the Specification**

The Office Action objects to the specification because the specification refers to FIGS. 5a and 5b when no such drawings exist. Applicant has amended the specification to replace instances of "FIGS. 5a and 5b" with "FIGS. 6a and 6b" as shown in the "Amendments to the Specification" beginning on page 2 above. Thus, Applicant respectfully requests that the objection to the specification be withdrawn.

### **III. Rejections Under 35 U.S.C. §102**

The Office Action rejects claims 1-12 under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent No. 6,741,195 (Cho). Applicant respectfully traverses the rejection. While Applicant believes the claims, as previously presented, distinguished over Cho, independent claim 1 has been amended to clearly point out the distinctions. In particular, claim 1 has been amended, *inter alia*, to clearly indicate that the digital-to-analog converter converts a digital signal for the purposes of driving a transmit line, and also has been amended to include conversion circuitry that allows the transmit driver to operate in a plurality of modes. In contrast, Cho merely discloses a current steered digital-to-analog converter (DAC). Cho

nowhere mentions anything about a digital-to-analog converter (DAC) for driving a transmit line, and more particularly, a DAC as a component in a line driver for driving a transmit line that can be configured to operate in a plurality of modes, based on at least one characteristic of the transmit line.

Cho discloses a particular current steered DAC circuit implemented using a plurality of steered current sources (Abstract). However, Cho mentions nothing at all about transmit line drivers, implementing a DAC in a transmit line driver, or whether the disclosed DAC would be at all suitable for such an application. The only application for the DAC that Cho discloses is in the context of an imaging sensor, for example, in a camera and, more particularly, an NTSC format imaging sensor. Nowhere does Cho disclose or suggest a DAC for a transmit line driver, nor indeed does Cho described transmit line drivers at all. Rather, Cho merely describes a particular DAC design suitable for video camera applications. Applicant respectfully points that a DAC is only one element of the transmit driver recited in the amended claims. Cho is completely silent with respect to a DAC implemented as part of a transmit line driver wherein the transmit line driver can operate in a plurality of modes depending on at least one characteristic of the transmit line.

Claim 1, as amended, recites a transmit line driver adapted to drive a signal over a transmit line, the transmit line driver comprising a digital-to-analog converter (DAC) receiving a digital input and providing at least one analog current output, and conversion circuitry adapted for coupling between the DAC and a transformer of the transmit line, the conversion circuitry adapted to convert the analog current output to a signal to be transmitted over the transmit line via the transformer, wherein the conversion circuitry is reconfigurable such that the transmit driver is capable of operating in at least one current mode and at least one voltage mode depending on at least one characteristic of the transmit line:

Cho discloses a DAC but is completely silent with respect to “a transmit line driver adapted to drive a signal over a transmit line,” as recited in claim 1. A digital-to-analog converter (DAC) is only one component of the transmit line driver recited in claim 1. In particular, the transmit driver also includes conversion circuitry adapted for coupling between the DAC and a transformer of the transmit line. Not only does Cho nowhere disclose or suggest any type of “conversion circuitry adapted for coupling between the DAC and a transformer of the transmit line,” but Cho nowhere discloses or suggests conversion circuitry that is “reconfigurable such that the transmit driver is capable of operating in at least one current mode

and at least one voltage mode depending on at least one characteristic of the transmit line,” as further recited in claim 1. For the foregoing reasons, claim 1 patentably distinguishes over Cho and is in allowable condition.

Claims 2-16 depend from claim 1 and are allowable based at least upon their dependencies.

**CONCLUSION**

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

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